

CLAIMS

What is claimed is:

1. A Voice-over-Internet Protocol (VoIP) system, comprising:
a network including at least two VoIP proxy servers configured to allow voice data to be transmitted and received over the network;
at least two VoIP clients operatively coupled to the network to transmit and receive voice data over the network; and
a load balancing proxy server device configured to determine an identity of a VoIP proxy server with a lowest workload, and to provide the identity of the VoIP proxy server with the lowest workload to one of the at least two VoIP clients so that the one of the at least two VoIP clients can connect to the VoIP proxy server with the lowest workload in order to transmit and receive voice data in relation to another of the at least two VoIP clients.
2. The VoIP system according to claim 1, wherein the load balancing proxy server is programmed to determine and identify the VoIP proxy server with the lowest workload of the at least two VoIP proxy servers upon receipt of a client request from the one of the at least two VoIP clients.
3. The VoIP system according to claim 2, wherein the load balancing proxy server generates a server request to each of the at least two VoIP proxy servers to determine and identify the VoIP proxy server with lowest workload and awaits a response therefrom.
4. The VoIP system according to claim 3, wherein the load balancing proxy server upon receiving a response to the server request from one of the at least two VoIP proxy servers generates a cancel request to the other VoIP proxy servers.

5. The VoIP system according to claim 4, wherein the load balancing proxy server provides the identity of the VoIP proxy server with the lowest workload to the one of the at least two VoIP clients in response to the client request from the one of the at least two VoIP clients and the one of the at least two VoIP clients connects to the identified VoIP proxy server.

6. The VoIP system according to claim 1, wherein the network comprises one or more of a proprietary network, a network of leased facilities, the Internet, an Intranet, a wide-area network (WAN), a local-area network (LAN) and a virtual private network (VPN).

7. The VoIP system according to claim 1, further including the one of the at least two VoIP clients coupled to a gateway coupled to the network wherein the gateway controls access to the network.

8. The VoIP system according to claim 7, wherein the gateway comprises one or more of a VoIP gateway, a VoIP PTSN gateway, a media gateway, a router and an H.323 gateway.

9. The VoIP system according to claim 1, wherein the one of the at least two VoIP clients comprises one or more of an IP phone, a plain old telephone system (POTS) phone, a cell phone, a satellite phone, a microphone, a computer video camera with a microphone and a multi-media computer configured to transmit and receive voice data.

10. A method for connecting at least two Voice-over-Internet Protocol (VoIP) clients to a VoIP system, wherein the VoIP system comprises a network of at least two VoIP proxy servers, a load balancing proxy server and a VoIP proxy server which has a lowest workload; comprising the steps of:

(a) determining an identity of the VoIP proxy server which has the lowest workload of the at least two VoIP proxy servers; and

(b) connecting of one of the at least two VoIP clients to the VoIP proxy server with the lowest workload in order to transmit and receive voice data in relation to another of the at least two VoIP clients.

11. The method of claim 10, further including the step of receiving a client request from the one of the at least two VoIP clients.

12. The method of claim 10, further including the step of generating a request to each of the at least two VoIP proxy servers to determine and identify the VoIP proxy server with the lowest workload and awaiting a response therefrom.

13. The method of claim 10, further including the step of receiving a first response from one of the at least two VoIP proxy servers and sending a cancel request to the other VoIP proxy server.

14. The method of claim 10, further including the step of providing the identity of the VoIP proxy server with the lowest workload to the one of the at least two VoIP clients in response to the client request from the one of the at least two VoIP clients.

15. A Voice-over-Internet Protocol (VoIP) system, comprising:
a network including at least two VoIP proxy servers configured to allow voice data to be transmitted and received over the network;
at least one VoIP client operatively coupled to the network to transmit and receive voice data over the network; and
a load balancing proxy server device configured to determine an identity of a VoIP proxy server with the lowest workload, and to provide the identity of the VoIP proxy server with the lowest workload to the at least one VoIP client so that the at least one VoIP client can connect to the VoIP proxy server with the lowest workload in order to transmit and receive voice data.

16. The VoIP system according to claim 15, wherein the at least one VoIP client connects to the VoIP proxy server with the lowest workload to transmit and receive video data.